OCCUPATIONAL INJURIES
AND DISEASES IN **ALBERTA**

Lost-Time Claims and Claim Rates

Manufacturing, Processing & Packaging Industries

2000 to 2004

Released July 2005

WORK SAFE ALBERTA

Alberta HUMAN RESOURCES AND EMPLOYMENT

the people & workplace department

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HIGHLIGHTS

From 2000 to 2004...

- There were 37,447 lost-time claims from workers in the Manufacturing, Processing and Packaging industries. Of those, 34.6% involved Primary Metal (especially steel) Products, 16.9% Wood Products, and 14.6% Meat, Hides and Pelt Products.

- Sprains, strains and tears were the most common nature of injury, accounting for 41.4% of the total lost-time claims.

- The trunk was the most common body part injured, accounting for over one-third of the total claims.

- Incident types involving overexertion or being struck by objects accounted for 38.7% of all claims.

- Workers aged between 25 and 44 years accounted for 57.4% of lost-time claims.

- Claims requiring between one and five days off work accounted for 43.4% of all injuries or diseases.

In 2004...

- The Workers' Compensation Board (WCB) – Alberta accepted 6,532 lost-time claims from Manufacturing, Processing and Packaging workers, representing 18.6% of all lost-time claims in the province.

- The lost-time claim rate for the Manufacturing, Processing and Packaging industries was 3.6 per 100 person-years, the lowest rate achieved over the last five years. The 2004 provincial lost-time claim rate was 2.6 per 100 person-years.

- The duration rate for the Manufacturing, Processing and Packaging industries was 64 days lost per 100 person-years, slightly lower than the provincial duration rate of 65.

- The Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector had the lowest lost-time claim rate of all Manufacturing, Processing and Packaging sub-sectors at 0.7 per 100 person-years. Meat, Hides and Pelt Products had the highest lost-time claim rate at 7.5 per 100 person-years.

- Employers with 20 to 39 person-years had the highest lost-time claim rate at 4.4 per 100 person-years.
- Less than five percent of employers in the Manufacturing, Processing and Packaging industries had a valid Certificate of Recognition (COR).
- The WCB accepted 16 occupational fatalities for compensation in the Manufacturing, Processing and Packaging industries, representing 12.9% of all workplace fatalities accepted in Alberta.

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INTRODUCTION

Role of Alberta Human Resources and Employment

Alberta Human Resources and Employment (AHRE) invests in people and fosters safe and productive workplaces. AHRE develops and delivers programs and services which contribute to workplaces that are safe, healthy, fair and stable for workers and employers by:

- Working with industry and safety associations to audit and certify health and safety programs.
- Helping employers, workers, unions and industry associations work together by offering facilitation services, workshops and partnership opportunities.
- Developing and maintaining policy and legislated standards in Alberta.
- Preparing and providing ongoing support of Alberta's workplace health and safety legislation.
- Explaining legislated standards under the Occupational Health and Safety Act and the Employment Standards Code and ensuring compliance through complaint resolution, investigation and targeted inspections.

Occupational Injuries and Diseases in Manufacturing, Processing and Packaging Industries 2000 to 2004

Each year, AHRE prepares a report on the occupational injuries and diseases in the Manufacturing, Processing and Packaging industries. The purpose of this report is to provide government, employers, workers, and health and safety professionals in the Manufacturing, Processing and Packaging industries with information about key health and safety issues.

This report includes:

- An estimation of the risk of injury or disease (lost-time claim rate) in addition to general descriptive information about incidents and injured workers.
- The number of employers that earned a Certificate of Recognition (COR).
- Occupational fatalities accepted by the WCB for compensation and fatality rates for the Manufacturing, Processing and Packaging industries.

Notes about this report:

- While this report focuses on 2004 data, information for 2000 to 2003 is also provided for comparison.
- The lost-time claim rate based on a few person-years is too volatile to make a valid comparison; therefore the lost-time claim rate is not calculated when there are fewer than 40 person-years.
- Duration rate is highly unstable when based on a few lost-time claims. Duration rate is not calculated when there are fewer than 30 lost-time claims.
- Percentages may not add up to 100 because of rounding.
- Terms, definitions and formulas are described in Appendix A. Industry codes are listed in Appendix B.

SECTION 2

LOST-TIME CLAIM RATE AND DURATION RATE

The lost-time claim rate[1] represents the probability or risk of a disabling injury or disease to a worker during a period of one year. The 2004 lost-time claim rate for the Manufacturing, Processing and Packaging industries was 3.6 per 100 person-years.

In 2004, there were 6,532 lost-time claims in the Manufacturing, Processing and Packaging industries, representing 18.6% of the total lost-time claims in the province. The Manufacturing, Processing and Packaging industries' lost-time claim rate was 3.6 per 100 person-years, a decrease of 7.7% from 2003 and the lowest rate over the last five years (see Table 2.0). The 2003 provincial lost-time claim rate was 2.9 per 100 person-years. The lost-time claim rate of 3.6 per 100 person-years translates to 18 lost-time claims per million hours worked.

The duration rate is intended to show the severity of the effects of occupational injury and disease as reflected by the number of days off work per 100 person-years. In 2004, the Manufacturing, Processing and Packaging industries had a duration rate of 64, the lowest during the last five years and slightly lower than the provincial duration rate of 65.

Table 2.0
Manufacturing, Processing and Packaging Industries — Alberta: 2000-2004

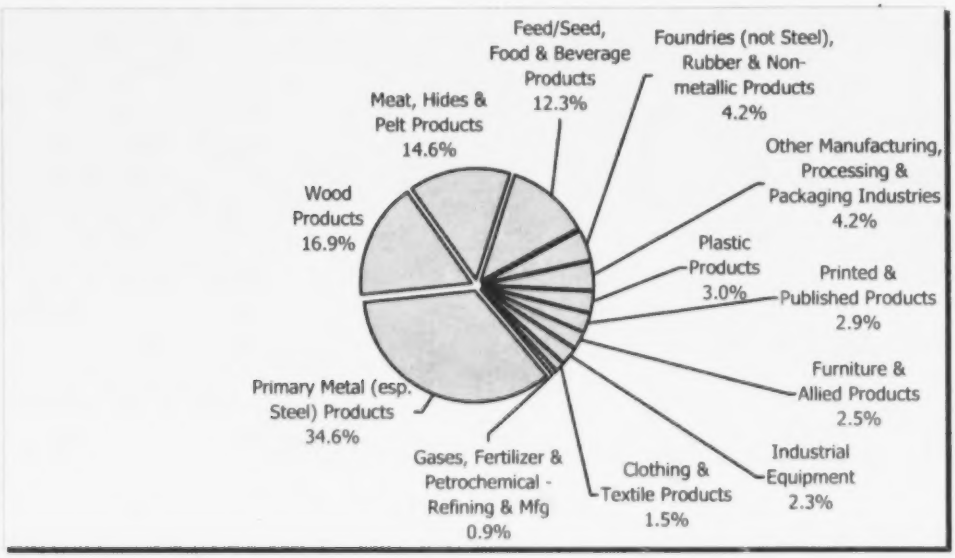
Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	10,780	$29,651,520	165,588	180,873	109	8,323	5.0
2001	11,414	$30,029,356	166,863	187,954	113	8,419	5.0
2002	11,549	$31,115,891	172,575	170,017	99	7,353	4.3
2003	11,638	$28,343,549	174,430	142,517	82	6,820	3.9
2004	**11,996**	**$28,087,507**	**182,098**	**116,315**	**64**	**6,532**	**3.6**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[1] The rate has been calculated from lost-time claims data as of March 31, 2005. This rate underestimates the risk of occupational injury and disease since some lost-time claims that occurred in 2004 were not administered by March 31, 2005.

Between 2000 and 2004, there were 37,447 lost-time claims in the Manufacturing, Processing and Packaging industries. The Primary Metal (especially steel) Products sub-sector accounted for over one-third of total lost-time claims, followed by the Wood Products sub-sector at 16.9%. The Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector had the fewest lost-time claims at 0.9% (see Chart 2.0).

Chart 2.0
Percentage of Lost-Time Claims by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2000-2004


Feed/Seed, Food & Beverage Products 12.3%
Foundries (not Steel), Rubber & Non-metallic Products 4.2%
Meat, Hides & Pelt Products 14.6%
Other Manufacturing, Processing & Packaging Industries 4.2%
Wood Products 16.9%
Plastic Products 3.0%
Printed & Published Products 2.9%
Furniture & Allied Products 2.5%
Primary Metal (esp. Steel) Products 34.6%
Industrial Equipment 2.3%
Gases, Fertilizer & Petrochemical - Refining & Mfg 0.9%
Clothing & Textile Products 1.5%

Data Source: 2004 WCB Data. Prepared by Data Development and Evaluation

2.1 Lost-Time Claim Rate by Size of Employer

In the Manufacturing, Processing and Packaging industries, employers with 20 to 39 person-years had the highest lost-time claim rate at 4.4, followed by employers with 10 to 19 person-years at 4.1. Employers with less than 10 person-years had the lowest lost-time claim rate at 3.2 (see Table 2.1). For the province, employers with 20 to 39 and 40 to 99 person-years had the highest lost-time claim rate while employers with less than 10 person-years had the lowest.

Table 2.1
Lost-Time Claim Rate by Size[2] of Employer — Alberta: 2004

Size of Employer	Number of Accounts	Lost-Time Claims	Person-Years	Lost-Time Claim Rate
Less than 10 person-years	9,562	524	16,367	3.2
10 to 19 person-years	807	471	11,379	4.1
20 to 39 person-years	600	751	16,881	4.4
40 to 99 person-years	461	1,120	28,479	3.9
100 or more person-years	385	3,643	108,991	3.3
Unspecified	181	23	N/A [1]	N/A [2]

[1] The person-years weren't estimated for employers that didn't report payroll information to the WCB before March 31, 2005.
[2] The lost-time claim rate based on a few person-years is too volatile to make a valid comparison; therefore the lost-time claim rate is not calculated when there are fewer than 40 person-years.

Data Source: 2004 WCB Data. Prepared by Data Development and Evaluation

[2] Size is measured in terms of person-years.

2.2 Lost-Time Claims by Manufacturing, Processing and Packaging Sub-Sector

Between 2000 and 2004, the Meat, Hides and Pelt Products sub-sector had the highest lost-time claim rate at 7.5 per 100 person-years. The Gases, Fertilizer and Petrochemical – Refining and Manufacturing sub-sector had the lowest lost-time claim rate at 0.7 (see Table 2.2).

Table 2.2
Lost-Time Claim Rate by Manufacturing, Processing and Packaging Sub-Sector — Alberta: 2000-2004

Sub-Sector	2000	2001	2002	2003	2004
Manufacturing, Processing & Packaging Industries	5.0	5.0	4.3	3.9	**3.6**
Meat, Hides & Pelt Products	8.4	8.7	8.6	8.3	**7.5**
Clothing & Textile Products	2.9	2.8	3.2	3.2	**2.0**
Feed/Seed, Food & Beverage Products	7.1	6.4	5.5	5.5	**4.6**
Wood Products	5.5	5.5	4.7	4.0	**3.8**
Furniture & Allied Products	9.2	8.2	6.8	6.4	**4.9**
Printed & Published Products	1.8	1.7	1.9	1.6	**1.4**
Foundries (not Steel), Rubber & Non-metallic Products	4.9	4.4	4.0	3.8	**3.7**
Primary Metal (esp. Steel) Products	6.3	6.4	4.7	4.4	**4.1**
Industrial Equipment	2.3	2.7	2.1	1.8	**1.4**
Gases, Fertilizer & Petrochemical - Refining & Mfg	0.9	0.6	0.5	0.4	**0.7**
Plastic Products	5.5	5.2	5.4	4.2	**3.9**
Other Manufacturing, Processing and Packaging	2.3	2.3	2.1	2.0	**1.9**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2A Meat, Hides and Pelt Products

In 2004, the Meat, Hides and Pelt Products sub-sector had a lost-time claim rate of 7.5 per 100 person-years, more than twice the rate of 3.6 per 100 person-years for all Manufacturing, Processing and Packaging industries. The lost-time claim rate of 7.5 per 100 person-years was the lowest rate in the last five years (see Table 2.2A).

Table 2.2A
Meat, Hides and Pelt Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	158	$3,108,843	12,283	18,564	151	1,033	8.4
2001	167	$3,318,814	12,772	19,500	153	1,115	8.7
2002	161	$3,507,674	13,399	18,583	139	1,147	8.6
2003	156	$3,983,624	13,116	18,540	141	1,093	8.3
2004	**156**	**$3,931,261**	**14,636**	**14,048**	**96**	**1,093**	**7.5**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2B Clothing and Textile Products

In 2004, the lost-time claim rate for the Clothing and Textile Products sub-sector decreased by 37.5% to 2.0 per 100 person-years. The duration rate fell by 53.4% from 88 to 41 days lost per 100 person-years (see Table 2.2B).

Table 2.2B
Clothing and Textile Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	464	$399,537	4,201	3,742	89	121	2.9
2001	466	$344,210	4,165	3,196	77	115	2.8
2002	465	$426,233	3,718	3,170	85	118	3.2
2003	452	$559,488	3,969	3,499	88	128	3.2
2004	**459**	**$215,371**	**3,673**	**1,516**	**41**	**73**	**2.0**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2C Feed/Seed, Food and Beverage Products

In 2004, the lost-time claim rate for the Feed/Seed, Food and Beverage Products sub-sector decreased by 16.4% to 4.6 per 100 person-years. The duration rate fell by 28.4% from 102 to 73 days lost per 100 person-years (see Table 2.2C).

Table 2.2C
Feed/Seed, Food and Beverage Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	682	$3,523,424	15,354	23,888	156	1,092	7.1
2001	683	$3,228,813	15,424	23,683	154	992	6.4
2002	674	$3,765,150	16,277	20,892	128	892	5.5
2003	673	$3,085,483	15,897	16,189	102	873	5.5
2004	**647**	**$2,658,388**	**16,871**	**12,255**	**73**	**775**	**4.6**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2D Wood Products

In 2004, the Wood Products sub-sector experienced a 5.0% decrease in the lost-time claim rate from 4.0 to 3.8 per 100 person-years. The duration rate in 2004 was 67 per 100 person-years, the lowest in the past five years and a 24.7% reduction from 2003 (see Table 2.2D).

Table 2.2D
Wood Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	1,035	$5,735,982	26,427	32,519	123	1,465	5.5
2001	1,057	$4,786,202	26,282	32,950	125	1,442	5.5
2002	1,044	$5,490,094	27,260	30,387	111	1,294	4.7
2003	1,044	$5,032,924	26,834	23,824	89	1,082	4.0
2004	**1,043**	**$4,177,170**	**27,497**	**18,519**	**67**	**1,049**	**3.8**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2E Furniture and Allied Products

The Furniture and Allied Products sub-sector had a lost-time claim rate of 4.9 per 100 person-years in 2004, the lowest rate during the past five years and a reduction of 23.4% from 2003. The duration rate fell by 30.0% from 203 to 142 days lost per 100 person-years in 2004 (see Table 2.2E).

Table 2.2E
Furniture and Allied Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	491	$642,363	2,433	5,753	236	223	9.2
2001	550	$603,138	2,589	4,367	169	211	8.2
2002	654	$781,519	2,627	5,627	214	178	6.8
2003	825	$942,629	2,835	5,763	203	181	6.4
2003	**947**	**$853,092**	**3,116**	**4,433**	**142**	**154**	**4.9**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2F Printed and Published Products

The Printed and Published Products sub-sector had a lost-time claim rate of 1.4 per 100 person-years in 2004, less than half the rate of all Manufacturing, Processing and Packaging industries. The duration rate increased slightly in 2004 from 42 to 43 days lost per 100 person-years (see Table 2.2F).

Table 2.2F
Printed and Published Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	540	$589,868	12,984	5,298	41	232	1.8
2001	563	$579,235	12,519	4,741	38	209	1.7
2002	567	$1,045,301	12,165	6,735	55	234	1.9
2003	539	$782,781	12,863	5,426	42	200	1.6
2004	**511**	**$695,154**	**13,718**	**5,856**	**43**	**198**	**1.4**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2G Foundries (not Steel), Rubber and Non-metallic Products

The lost-time claim rate for Foundries (not Steel), Rubber and Non-metallic Products was 3.7 per 100 person-years in 2004, the lowest in the past five years. The duration rate fell slightly from 98 to 96 days lost per 100 person-years (see Table 2.2G).

Table 2.2G
Foundries (not Steel), Rubber and Non-metallic Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	273	$1,722,727	7,154	10,381	145	348	4.9
2001	278	$1,426,351	6,719	8,463	126	297	4.4
2002	283	$1,484,083	7,690	8,509	111	311	4.0
2003	296	$1,536,664	7,767	7,592	98	295	3.8
2004	**302**	**$1,933,986**	**8,908**	**8,566**	**96**	**334**	**3.7**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2H Primary Metal (esp. Steel) Products

The lost-time claim rate for Primary Metal (esp. Steel) Products was 4.1 per 100 person-years in 2004, the lowest rate in the past five years. The duration rate also fell to a five-year low, from 87 days lost to 72 per 100 person-years, a reduction of 17.2% (see Table 2.2H).

Table 2.2H
Primary Metal (esp. Steel) Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	5,533	$10,607,389	46,474	61,919	133	2,912	6.3
2001	6,013	$12,625,451	49,814	71,763	144	3,192	6.4
2002	6,036	$10,428,695	50,216	56,744	113	2,379	4.7
2003	5,990	$9,233,783	52,100	45,459	87	2,276	4.4
2004	**6,304**	**$9,631,979**	**53,332**	**38,607**	**72**	**2,189**	**4.1**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2I Industrial Equipment

The lost-time claim rate for Industrial Equipment was 1.4 per 100 person-years in 2004, the lowest lost-time claim rate for the past five years. The duration rate decreased by 30.6% to 25 days lost per 100 person-years in 2004 (see Table 2.2I).

Table 2.2I
Industrial Equipment — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	425	$843,800	7,264	4,329	60	170	2.3
2001	430	$665,129	7,974	4,059	51	213	2.7
2002	428	$1,014,935	8,491	4,046	48	175	2.1
2003	435	$729,578	8,760	3,196	36	162	1.8
2004	**420**	**$870,954**	**10,963**	**2,694**	**25**	**150**	**1.4**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2J Gases, Fertilizer and Petrochemical – Refining and Manufacturing

In 2004, the Gases, Fertilizer and Petrochemical – Refining and Manufacturing lost-time claim rate was 0.7 per 100 person-years, the lowest rate of all sub-sectors in the Manufacturing, Processing and Packaging industries. The duration rate decreased by 20.0% to eight days lost per 100 person-years in 2004 (see Table 2.2J).

Table 2.2J
Gases, Fertilizer and Petrochemical – Refining and Manufacturing — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	78	$473,673	10,018	2,066	21	94	0.9
2001	80	$364,503	9,451	1,861	20	59	0.6
2002	90	$1,084,128	10,487	1,239	12	52	0.5
2003	85	$326,316	11,462	1,142	10	50	0.4
2004	**86**	**$1,048,042**	**11,282**	**860**	**8**	**74**	**0.7**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

2.2K Plastic Products

The lost-time claim rate for Plastic Products was 3.9 per 100 person-years in 2004, a 7.1% decrease from 2003 and the lowest rate over the last five years. The duration rate was 61 days lost per 100 person-years, also the lowest rate in the past five years and a 24.7% reduction from 2003 (see Table 2.2K).

Table 2.2K
Plastic Products — Alberta: 2000-2004

Year	Number of Accounts	Cost of Claims	Person-Years	Days Lost	Duration Rate	Lost-Time Claims	Lost-Time Claim Rate
2000	154	$849,283	4,450	5,071	114	245	5.5
2001	159	$578,391	4,430	3,908	88	232	5.2
2002	160	$793,763	4,609	5,835	127	251	5.4
2003	164	$701,425	4,794	3,905	81	203	4.2
2004	**152**	**$658,868**	**4,976**	**3,053**	**61**	**194**	**3.9**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

SECTION 3

INJURY AND DISEASE ANALYSIS

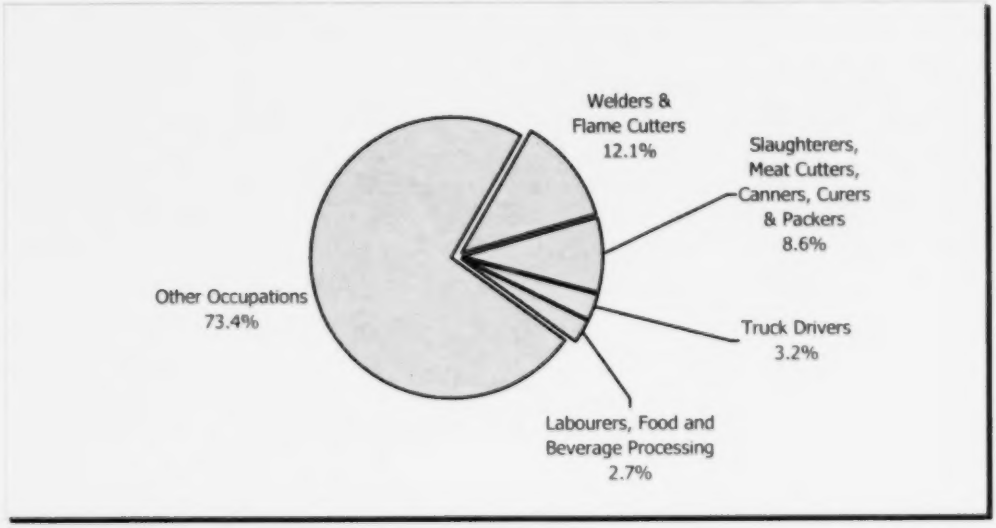
Overexertion was the most common cause for lost-time claims in the Manufacturing, Processing and Packaging industries. Sprains, strains and tears continued to be the leading nature of injury with the trunk being the most commonly injured body part.

This section describes the characteristics of the injured workers and the nature of their injuries or diseases. Tables are provided to enable comparisons of 2004 injuries and diseases in Manufacturing, Processing and Packaging industries with provincial averages and trends. A detailed explanation of the formulas for calculating the indicators of the comparison tables is available in Appendix A.

3.1 Injured Worker Characteristics

In 2004, four occupations accounted for 26.6% of lost-time claims. Welders and flame cutters had the most claims at 12.1%, followed by slaughterers, meat cutters, canners, curers and packers at 8.6% (see Chart 3.1A).

Chart 3.1A
Lost-Time Claims by Occupation — Alberta: 2004


Welders & Flame Cutters 12.1%
Slaughterers, Meat Cutters, Canners, Curers & Packers 8.6%
Truck Drivers 3.2%
Labourers, Food and Beverage Processing 2.7%
Other Occupations 73.4%

Data Source: 2004 WCB Data. Prepared by Data Development and Evaluation

Between 2000 and 2004, workers aged 25 to 44 years accounted for 57.4% of all lost-time claims. Young workers aged between 15 and 24 accounted for 19.8% of total claims, while workers aged 45 years and older represented 22.6% of claims (see Table 3.1A).

Table 3.1A
Lost-Time Claims by Age — Alberta: 2000-2004

Age	2000	2001	2002	2003	2004	Total Lost-Time Claims	%
15 – 19 Years	488	549	396	327	**338**	2,098	5.6%
20 – 24 Years	1,304	1,276	951	912	**888**	5,331	14.2%
25 – 34 Years	2,403	2,479	2,059	1,848	**1,719**	10,508	28.1%
35 – 44 Years	2,475	2,414	2,206	1,995	**1,895**	10,985	29.3%
45 – 54 Years	1,183	1,210	1,264	1,245	**1,178**	6,080	16.2%
55 – 64 Years	428	445	429	446	**462**	2,210	5.9%
65 Years and Over	30	36	38	45	**50**	199	0.5%
Unspecified	12	10	10	2	**2**	36	0.1%
Total	**8,323**	**8,419**	**7,353**	**6,820**	**6,532**	**37,447**	**100.0%**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

In the Manufacturing, Processing and Packaging industries, the majority of claims were from men. Between 2000 and 2004, 80.7% of lost-time claims involved men. Lost-time claims from women accounted for 17.4% of the total claims (see Table 3.1B).

Table 3.1B
Lost-Time Claims by Gender — Alberta: 2000-2004

Gender	2000	2001	2002	2003	2004	Total Lost-Time Claims	%
Men	6,872	6,829	5,839	5,417	**5,246**	30,203	80.7%
Women	1,304	1,381	1,348	1,263	**1,214**	6,510	17.4%
Unspecified	147	209	166	140	**72**	734	2.0%
Total	**8,323**	**8,419**	**7,353**	**6,820**	**6,532**	**37,447**	**100.0%**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

3.2 Nature of Injury or Disease

The nature of injury is used to identify the physical characteristics of the injury or disease. Between 2000 and 2004, 88.1% of lost-time claims were caused by traumatic injuries and disorders. The four most common traumatic injuries and disorders were: sprains, strains and tears, 41.4%; surface wounds and bruises, 14.1%; open wounds, 13.2%; and fractures and dislocations, 7.9% (see Table 3.2A).

Table 3.2A
Nature of Injury or Disease — Alberta: 2000-2004

Nature of Injury or Disease	2000	2001	2002	2003	2004	Total Lost-Time Claims	%
Traumatic Injuries and Disorders	**7,449**	**7,423**	**6,456**	**5,958**	**5,713**	**32,999**	**88.1%**
Sprains, Strains and Tears	3,481	3,526	3,075	2,832	2,602	15,516	41.4%
Surface Wounds and Bruises	1,236	1,239	965	876	958	5,274	14.1%
Open Wounds	1,115	1,124	975	900	826	4,940	13.2%
Fractures and Dislocations	712	620	585	532	491	2,940	7.9%
Burns	178	203	150	163	123	817	2.2%
Other Traumatic Injuries and Disorders	727	711	706	655	713	3,512	9.4%
Systemic Diseases and Disorders	**557**	**590**	**491**	**525**	**552**	**2,715**	**7.3%**
Symptoms, Signs and Ill-Defined Conditions	**21**	**11**	**34**	**26**	**22**	**114**	**0.3%**
Other Diseases, Conditions and Disorders	**11**	**8**	**14**	**12**	**8**	**53**	**0.1%**
Infectious and Parasitic Diseases	**7**	**5**	**3**	**6**	**5**	**26**	**0.1%**
Multiple Diseases, Conditions and Disorders	**5**	**4**	**3**	**2**	**1**	**15**	**0.0%**
Neoplasms, Tumors and Cancer	**0**	**0**	**0**	**1**	**3**	**4**	**< 0.1%**
Nature of Injury – Unknown	**273**	**378**	**352**	**290**	**228**	**1,521**	**4.1%**
Total	**8,323**	**8,419**	**7,353**	**6,820**	**6,532**	**37,447**	**100.0%**

Data Source: 2004 WCB Data. Prepared by Data Development and Evaluation

In 2004, sprains, strains and tears accounted for 39.8% of all claims in the Manufacturing, Processing and Packaging industries. This was 1.2 times higher than the average percentage of injuries for this nature of injury category for the whole province. Percentages of injuries in all nature of injury categories were higher than or equal to the provincial average, except other diseases, conditions and disorders and infectious and parasitic diseases (see Table 3.2B).

Table 3.2B
Nature of Injury or Disease — Comparison 2004[3]

Nature of Injury or Disease	% of Manufacturing, Processing & Packaging Industries' Claims	% of Total Provincial Claims	Number of Times Higher/Lower Than the Provincial Average
Traumatic Injuries and Disorders	**87.5%**	**88.9%**	**1.4**
Sprains, Strains and Tears	39.8%	46.8%	1.2
Open Wounds	12.6%	8.7%	2.0
Surface Wounds and Bruises	14.7%	11.0%	1.8
Fractures and Dislocations	7.5%	8.9%	1.2
Burns	1.9%	2.4%	1.1
Other Traumatic Injuries and Disorders	10.9%	11.0%	1.4
Systemic Diseases and Disorders	**8.5%**	**6.3%**	**1.9**
Symptoms, Signs and Ill-Defined Conditions	**0.3**	**0.3%**	**1.5**
Other Diseases, Conditions and Disorders	**0.1**	**0.3%**	**0.5**
Infectious and Parasitic Diseases	**0.1**	**0.1%**	**0.9**
Multiple Diseases, Conditions and Disorders	**< 0.1%**	**< 0.1%**	**3.7**
Neoplasms, Tumors and Cancer	**< 0.1%**	**< 0.1%**	**1.9**
Nature of Injury – Unknown	**3.5**	**4.0%**	**1.2**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[3] Number of Times Higher/Lower Than the Provincial Average: 1 indicates that the injury percentage of the industries is equal to the provincial average; greater than 1 indicates that the injury percentage of the industries is higher than the provincial average; less than 1 indicates that the injury percentage of the industries is lower than the provincial average. See Appendix A for calculation details.

3.3 Part of Body Injured

Between 2000 and 2004, the trunk was the main injured body part, accounting for over one-third of lost-time claims in the Manufacturing, Processing and Packaging industries, followed by upper extremities, at 32.2% and lower extremities at 16.0%. The most common trunk injury was to the back, including spine and spinal cord, representing 23.3% of the total lost-time claims (see Table 3.3A).

Table 3.3A
Part of Body Injured — Alberta: 2000-2004

Part of Body Injured	2000	2001	2002	2003	2004	Total Lost-Time Claims	%
Trunk	**3,052**	**2,994**	**2,626**	**2,363**	**2,280**	**13,315**	**35.6%**
Back, Including Spine, Spinal Cord	2,066	1,949	1,724	1,539	1,453	8,731	23.3%
Other Trunk	986	1,045	902	824	827	4,584	12.2%
Upper Extremities	**2,702**	**2,733**	**2,341**	**2,189**	**2,075**	**12,040**	**32.2%**
Finger(s), Fingernail(s)	1,131	1,138	965	887	818	4,939	13.2%
Wrist(s) and Hand(s) Except Finger(s)	967	968	802	780	728	4,245	11.3%
Other Upper Extremities	604	627	574	522	529	2,856	7.6%
Lower Extremities	**1,299**	**1,371**	**1,165**	**1,099**	**1,045**	**5,979**	**16.0%**
Ankle(s) and Foot (Feet) Except Toes	582	627	559	498	465	2,731	7.3%
Leg(s)	617	656	526	518	522	2,839	7.6%
Other Lower Extremities	100	88	80	83	58	409	1.1%
Head	**773**	**807**	**631**	**640**	**689**	**3,540**	**9.5%**
Eye(s)	498	536	358	366	394	2,152	5.7%
Other Head Parts	275	271	273	274	295	1,388	3.7%
Multiple Body Parts	**297**	**314**	**422**	**376**	**321**	**1,730**	**4.6%**
Neck, Including Throat	**153**	**148**	**111**	**109**	**85**	**606**	**1.6%**
Body Systems	**29**	**24**	**30**	**18**	**20**	**121**	**0.3%**
Part of Body - Unknown	**16**	**26**	**24**	**18**	**12**	**96**	**0.3%**
Other Body Parts	**2**	**2**	**3**	**8**	**5**	**20**	**< 0.1%**
Total	**8,323**	**8,419**	**7,353**	**6,820**	**6,532**	**37,447**	**100.0%**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

In 2004, the back, including spine and spinal cord accounted for 22.2% of all claims in the Manufacturing, Processing and Packaging industries. This was 1.2 times higher than the average percentage of injuries for this part of body category for the whole province. Percentages of injuries in all part of body categories were higher than or equal to the provincial average, except multiple body parts, neck (including throat) and body systems (see Table 3.3B).

Table 3.3B
Part of Body Injured — Comparison 2004[4]

Part of Body Injured	% of Manufacturing, Processing & Packaging Industries' Claims	% of Total Provincial Claims	Number of Times Higher/Lower Than the Provincial Average
Trunk	**34.9%**	**38.5%**	**1.2**
Back, Including Spine, Spinal Cord	22.2%	25.7%	1.2
Other Trunk	12.7%	12.9%	1.4
Upper Extremities	**31.8%**	**24.5%**	**1.8**
Finger(s), Fingernail(s)	12.5%	8.0%	2.2
Wrist(s) and Hand(s) Except Finger(s)	11.1%	9.5%	1.6
Other Upper Extremities	8.1%	7.0%	1.6
Lower Extremities	**16.0%**	**18.9%**	**1.2**
Leg(s)	8.0%	9.4%	1.2
Ankle(s) and Foot (Feet) Except Toes	7.1%	8.3%	1.2
Other Lower Extremities	0.9%	1.2%	1.0
Head	**10.5%**	**7.5%**	**1.9**
Eye(s)	6.0%	2.8%	3.0
Other Head Parts	4.5%	4.7%	1.3
Multiple Body Parts	**4.9%**	**7.4%**	**0.9**
Neck, Including Throat	**1.3%**	**2.2%**	**0.8**
Body Systems	**0.3%**	**0.6%**	**0.7**
Part of Body - Unknown	**0.2%**	**0.2%**	**1.2**
Other Body Parts	**0.1%**	**0.1%**	**1.5**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[4] Number of Times Higher/Lower Than the Provincial Average: 1 indicates that the injury percentage of the industries is equal to the provincial average; greater than 1 indicates that the injury percentage of the industries is higher than the provincial average; less than 1 indicates that the injury percentage of the industries is lower than the provincial average. See Appendix A for calculation details.

3.4 Source of Injury or Disease

The source of injury or disease describes the object or substance that came into contact with the worker and resulted in an injury or disease. Between 2000 and 2004, two primary sources of injury accounted for 36.1% of total claims. Persons, plants, animals and minerals accounted for 18.9% and parts and materials, 17.2% (see Table 3.4A).

Table 3.4A
Source of Injury or Disease — Alberta: 2000-2004

Source of Injury or Disease	2000	2001	2002	2003	2004	Total Lost-Time Claims	%
Persons, Plants, Animals and Minerals	**1,385**	**1,403**	**1,344**	**1,514**	**1,438**	**7,084**	**18.9%**
Person-Injured or Ill Worker	1,183	1,235	1,179	1,350	1,274	6,221	16.6%
Person-Other Than Injured or Ill Worker [1]	20	21	11	11	21	84	0.2%
Minerals – Metallic and Nonmetallic (except fuel)	21	16	12	10	10	69	0.2%
Other Persons, Plants, Animals and Minerals	161	131	142	143	133	710	1.9%
Parts and Materials	**1,588**	**1,490**	**1,125**	**1,160**	**1,067**	**6,430**	**17.2%**
Structures and Surfaces	**844**	**764**	**779**	**731**	**709**	**3,827**	**10.2%**
Containers [2]	**852**	**762**	**641**	**625**	**575**	**3,455**	**9.2%**
Machinery	**653**	**670**	**599**	**568**	**549**	**3,039**	**8.1%**
Tools, Instruments and Equipment	**610**	**674**	**546**	**516**	**505**	**2,851**	**7.6%**
Hand Tools – Non-powered	330	371	291	292	282	1,566	4.2%
Hand Tools - Powered	143	181	135	126	126	711	1.9%
Other Tools and Equipments	137	122	120	98	97	574	1.5%
Vehicles	**268**	**248**	**276**	**217**	**206**	**1,215**	**3.2%**
Furniture and Fixtures	**197**	**211**	**159**	**161**	**147**	**875**	**2.3%**
Chemicals and Chemical Products	**83**	**100**	**71**	**83**	**66**	**403**	**1.1%**
Other Sources	**489**	**476**	**403**	**458**	**523**	**2,349**	**6.3%**
Source of Injury - Unknown	**1,354**	**1,621**	**1,410**	**787**	**747**	**5,919**	**15.8%**
Total	**8,323**	**8,419**	**7,353**	**6,820**	**6,532**	**37,447**	**100.0%**

[1] Person – other than injured or ill worker: classifies injuries or illnesses inflicted by family members as well as non-family relations, including co-workers, former co-workers, and patients.
[2] Containers: classifies receptacles that are commonly used to hold, store or carry materials (examples: dishes, cups and glasses, luggage, etc.)

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

In 2004, person – injured or ill worker accounted for 19.5% of all claims in the Manufacturing, Processing and Packaging industries. This was 1.5 times higher than the average percentage of injuries for this source of injury category for the whole province. Percentages of injuries caused by other persons, plants, animals and minerals and powered hand tools were almost three times higher than the provincial average (see Table 3.4B).

Table 3.4B
Source of Injury or Disease — Comparison 2004[5]

Source of Injury or Disease	% of Manufacturing, Processing & Packaging Industries' Claims	% of Total Provincial Claims	Number of Times Higher/Lower Than the Provincial Average
Persons, Plants, Animals and Minerals	**22.0%**	**25.2%**	**1.2**
Person-Injured or Ill Worker	19.5%	18.4%	1.5
Person-Other Than Injured or Ill Worker	0.3%	4.9%	0.1
Minerals – Metallic and Nonmetallic (except fuel)	0.2%	0.3%	0.7
Other Persons, Plants, Animals and Minerals	2.0%	1.6%	2.7
Parts and Materials	**16.3%**	**9.8%**	**2.3**
Structures and Surfaces	**10.9%**	**15.9%**	**0.9**
Containers	**8.8%**	**10.1%**	**1.2**
Machinery	**8.4%**	**5.7%**	**2.0**
Tools, Instruments and Equipment	**7.7%**	**6.2%**	**1.7**
Hand Tools – Non-powered	4.3%	3.3%	1.8
Hand Tools - Powered	1.9%	0.9%	2.9
Other Tools and Equipments	1.5%	2.0%	1.0
Vehicles	**3.2%**	**7.2%**	**0.6**
Furniture and Fixtures	**2.3%**	**3.2%**	**1.0**
Chemicals and Chemical Products	**1.0%**	**0.9%**	**1.5**
Other Sources	**8.0%**	**5.3%**	**2.1**
Source of Injury - Unknown	**11.4%**	**10.5%**	**1.5**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[5] Number of Times Higher/Lower Than the Provincial Average: 1 indicates that the injury percentage of the industries is equal to the provincial average; greater than 1 indicates that the injury percentage of the industries is higher than the provincial average; less than 1 indicates that the injury percentage of the industries is lower than the provincial average. See Appendix A for calculation details.

3.5 Type of Event or Exposure

The type of event or exposure describes the incident or event that occurred at the time of the exposure that directly resulted in the injury or disease. The two most common types of event or exposure comprising nearly three-quarters of the total lost-time claims in the Manufacturing, Processing and Packaging industries in the last five years are: bodily reaction and exertion, 39.3%, and contact with objects and equipment, 34.4%.

Musculoskeletal injuries due to overexertion and repetitive motion accounted for 28.3% of lost-time claims between 2000 and 2004. Musculoskeletal injuries are injuries to a worker of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissues that are caused or aggravated by work and includes overexertion injuries and overuse injuries[6] (see Table 3.5A).

[6] Visit www.whs.gov.ab.ca for further information on the Occupational Health and Safety Code and musculoskeletal injuries.

Table 3.5A
Type of Event or Exposure — Alberta: 2000-2004

Type of Event or Exposure	2000	2001	2002	2003	2004	Total Lost-Time Claims	%
Bodily Reaction and Exertion	**3,208**	**3,222**	**2,740**	**2,866**	**2,681**	**14,717**	**39.3%**
Overexertion	1,990	1,941	1,524	1,471	1,359	8,285	22.1%
Bodily Reaction [1]	676	744	691	779	664	3,554	9.5%
Repetitive Motion	431	411	422	519	545	2,328	6.2%
Other Bodily Reaction/Exertion	111	126	103	97	113	550	1.5%
Contact with Objects and Equipment	**2,961**	**2,973**	**2,397**	**2,286**	**2,247**	**12,864**	**34.4%**
Struck by Object	1,384	1,424	1,184	1,098	1,123	6,213	16.6%
Caught in Object	741	709	608	570	495	3,123	8.3%
Struck Against Object	544	562	441	418	364	2,329	6.2%
Rubbed or Abraded	262	256	134	142	172	966	2.6%
Other Contact with Object/Equipment	30	22	30	58	93	233	0.6%
Falls	**945**	**899**	**862**	**762**	**716**	**4,184**	**11.2%**
Fall on Same Level	557	509	511	489	448	2,514	6.7%
Fall to Lower Level	284	291	252	207	208	1,242	3.3%
Other Falls	104	99	99	66	60	428	1.1%
Exposure to Harmful Substances	**340**	**351**	**290**	**331**	**294**	**1,606**	**4.3%**
Transportation Accidents	**121**	**127**	**139**	**106**	**117**	**610**	**1.6%**
Assaults and Violent Acts	**20**	**19**	**18**	**15**	**16**	**88**	**0.2%**
Assaults and Violent Acts by Person(s)	15	16	12	10	14	67	0.2%
Other Assaults and Violent Acts	5	3	6	5	2	21	0.1%
Fires and Explosions	**7**	**8**	**14**	**13**	**10**	**52**	**0.1%**
Type of Event – Unknown	**721**	**820**	**893**	**441**	**451**	**3,326**	**8.9%**
Total	**8,323**	**8,419**	**7,353**	**6,820**	**6,532**	**37,447**	**100.0%**

[1] Bodily reaction: injuries or illnesses resulting from a single incident of free bodily motion which imposed stress or strain on some part of the body.

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

In 2004, overexertion accounted for 20.8% of all claims in the Manufacturing, Processing and Packaging industries. This was 1.2 times higher than the average percentage of injuries for this type of event category for the whole province. The percentage of injuries due to being rubbed or abraded was over three times higher than the provincial average (see Table 3.5B).

Table 3.5B
Type of Event or Exposure — Comparison 2004[7]

Type of Event or Exposure	% of Manufacturing, Processing & Packaging Industries' Claims	% of Total Provincial Claims	Number of Times Higher/Lower Than the Provincial Average
Bodily Reaction and Exertion	**41.0%**	**42.5%**	**1.3**
Overexertion	20.8%	23.2%	1.2
Bodily Reaction	10.2%	12.1%	1.2
Repetitive Motion	8.3%	5.4%	2.1
Other Bodily Reaction/Exertion	1.7%	1.9%	1.3
Contact with Objects and Equipment	**34.4%**	**24.0%**	**2.0**
Struck by Object	17.2%	12.5%	1.9
Caught in Object	7.6%	4.2%	2.5
Struck Against Object	5.6%	5.0%	1.5
Rubbed or Abraded	2.6%	1.2%	3.2
Other Contact with Object/Equipment	1.4%	1.0%	1.9
Falls	**11.0%**	**16.3%**	**0.9**
Fall on Same Level	6.9%	0.5%	0.9
Fall to Lower Level	3.2%	4.8%	0.9
Other Falls	0.9%	1.0%	1.3
Exposure to Harmful Substances	**4.5%**	**4.3%**	**1.5**
Transportation Accidents	**1.8%**	**4.8%**	**0.5**
Assaults and Violent Acts	**0.2%**	**1.4%**	**0.2**
Assaults and Violent Acts by Person(s)	0.2%	1.2%	0.2
Other Assaults and Violent Acts	< 0.1%	0.2%	0.2
Fires and Explosions	**0.2%**	**0.2%**	**1.1**
Type of Event – Unknown	**6.9%**	**6.5%**	**1.5**

Data Source: 2004 WCB Data. Prepared by Data Development and Evaluation

[7] Number of Times Higher/Lower Than the Provincial Average: 1 indicates that the injury percentage of the industries is equal to the provincial average; greater than 1 indicates that the injury percentage of the industries is higher than the provincial average; less than 1 indicates that the injury percentage of the industries is lower than the provincial average. See Appendix A for calculation details.

3.6 Duration of Disability

Duration of disability[8] is intended to reflect the severity of the effects of occupational injury and disease as reflected by the number of days off work. However, the efforts of employers to introduce modified work programs to integrate injured workers more quickly back into the workforce can have a positive impact on workdays lost.

Between 2000 and 2004, claims with duration of disability between one and five days accounted for 43.4% of all claims, followed by six to ten days at 13.7%. Lost-time claims resulting in 51 days or more lost accounted for 12.4% of all claims in the past five years (see Table 3.6A).

Table 3.6A
Duration of Disability — Alberta: 2000-2004

Duration of Disability	2000	2001	2002	2003	2004	Total Lost-Time Claims	%
1 – 5 Days	3,665	3,803	3,100	2,913	**2,789**	16,270	43.4%
6 – 10 Days	1,196	1,212	977	927	**826**	5,138	13.7%
11 – 15 Days	580	575	501	459	**448**	2,563	6.8%
16 – 20 Days	356	374	315	314	**273**	1,632	4.4%
21 – 30 Days	505	447	404	352	**388**	2,096	5.6%
31 – 40 Days	331	335	299	269	**283**	1,517	4.1%
41 – 50 Days	241	223	216	195	**170**	1,045	2.8%
51 Days or More	1,046	1,093	1,004	867	**644**	4,654	12.4%
Unspecified	403	357	537	524	**711**	2,532	6.8%
Total	**8,323**	**8,419**	**7,353**	**6,820**	**6,532**	**37,447**	**100.0%**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[8] The duration of disability refers to the length of time, in days, for which the worker receives wage compensation from the WCB.

In 2004, claims with one to five days duration of disability accounted for 42.7% of all claims in the Manufacturing, Processing and Packaging industries. This was 1.6 times higher than the average percentage of injuries for claims of this duration for the whole province. Percentages of injuries in all duration categories were equal to or higher than the provincial average except claims of 51 days or more in duration (see Table 3.6B).

Table 3.6B
Duration of Disability — Comparison 2004[9]

Duration of Disability	% of Manufacturing, Processing & Packaging Industries' Claims	% of Total Provincial Claims	Number of Times Higher/Lower Than the Provincial Average
1 – 5 Days	42.7%	37.0%	1.6
6 – 10 Days	12.6%	13.0%	1.3
11 – 15 Days	6.9%	7.3%	1.3
16 – 20 Days	4.2%	4.8%	1.2
21 – 30 Days	5.9%	7.0%	1.2
31 – 40 Days	4.3%	4.9%	1.2
41 – 50 Days	2.6%	3.7%	1.0
51 Days or More	9.9%	14.8%	0.9
Unspecified	10.9%	7.3%	2.1

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[9] Number of Times Higher/Lower Than the Provincial Average: 1 indicates that the injury percentage of the industries is equal to the provincial average; greater than 1 indicates that the injury percentage of the industries is higher than the provincial average; less than 1 indicates that the injury percentage of the industries is lower than the provincial average. See Appendix A for calculation details.

SECTION 4

CERTIFICATE OF RECOGNITION EMPLOYERS

A Certificate of Recognition (COR) is given to employers who develop health and safety programs that meet established standards. Certificates are issued by Certifying Partners and are co-signed by AHRE[10].

In 2004, 4.7% of Manufacturing, Processing and Packaging industries' employers were COR holders. These employers represented 39.3% of the total person-years in the Manufacturing, Processing and Packaging industries. The Gases, Fertilizer and Petro-Chemical – Refining and Manufacturing sub-sector had the highest proportion of COR holders at 16.3%, representing 52.1% of all person-years in this sub-sector. Nearly seventy percent of all person-years in the Wood Products sub-sector were employed by COR holders (see Table 4.0).

Table 4.0
Employers With Valid COR — Alberta: 2004

Sub-Sector	Number of Certified Employers	Total Number of Employers	% of Total Employers Certified	% of Total Person-Years Certified
Wood Products	90	1,043	8.6%	68.8%
Meat, Hides and Pelt Products	12	156	7.7%	62.9%
Industrial Equipment	41	420	9.8%	31.8%
Foundries (not Steel), Rubber and Non-Metallic Products	37	302	12.3%	47.7%
Primary Metal (esp. Steel) Products	301	6,304	4.8%	35.2%
Gases, Fertilizer and Petrochemical-Refining and Mfg.	14	86	16.3%	52.1%
Feed/Seed, Food and Beverage Products	19	647	2.9%	28.6%
Plastic Products	12	152	7.9%	25.7%
Clothing and Textile Products	5	459	1.1%	5.0%
Furniture and Allied Products	4	947	0.4%	2.2%
Printed and Published Products	2	511	0.4%	2.4%
Other	22	969	2.3%	32.5%
Manufacturing, Processing & Packaging Industries	**559**	**11,996**	**4.7%**	**39.3%**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[10] For more information on the COR program visit www.gov.ab.ca/hre/whs/partners

Between 2003 and 2004, employers with a valid COR experienced greater decreases in their lost-time claim rates than non-COR holders. In the Manufacturing, Processing and Packaging industries, the lost-time claim rate for COR holders decreased by 9.3%, while the rate for non-COR holders decreased by 7.9%. For the province, both employers with a valid COR and non-COR holders experienced a 10.3% reduction in their lost-time claim rates (see Table 4.1).

Table 4.1
Lost-Time Claim Rate for Manufacturing COR Holders — Alberta: 2003 and 2004

		Manufacturing Industries				Province			
Employer	Year	LTCs	Person-Years	LTC Rate	Change in LTC Rate	LTCs	Person-Years	LTC Rate	Change in LTC Rate
COR	2003	2,118	68,867	3.1	-9.3%	10,906	374,757	2.9	-10.3%
	2004	1,993	71,478	2.8		10,522	403,984	2.6	
Non-COR	2003	4,702	105,562	4.5	-7.9%	25,669	888,356	2.9	-10.3%
	2004	4,539	110,620	4.1		24,597	949,230	2.6	

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

SECTION 5

OCCUPATIONAL FATALITIES

In 2004 the WCB accepted 16 fatalities in the Manufacturing, Processing and Packaging industries, accounting for 12.9% of all 124 fatalities in the province.

An occupational fatality is defined as the death of a worker that results from a work-related event or exposure. Beginning with this year's report, all fatalities will be classified by type based on the WCB classification standards. In previous years, fatalities by type had been classified by Alberta Human Resources and Employment (AHRE). For this reason, fatalities by type statistics in this report may differ slightly from numbers presented in previous reports. The WCB classifies occupational fatalities into three general types:

Motor Vehicle Incidents

Motor vehicle incidents typically involve non-industrial vehicles operating on public roads in which the fatally injured worker is either the driver or a passenger. This type of occupational fatality also includes cases involving aircraft crashes, train crashes, helicopter crashes and water vehicle crashes. In 2004, 12.5% of the Manufacturing, Processing and Packaging fatalities accepted by WCB were motor vehicle incidents (see Table 5.0).

Workplace Incidents

Workplace incidents consist of cases in which the worker died at a worksite or as a result of injuries sustained at a worksite. This is the type of fatality that AHRE typically investigates. In 2004, 37.5% of the Manufacturing, Processing and Packaging fatalities accepted by WCB were workplace incidents (see Table 5.0).

Occupational Disease

Occupational disease fatalities consist mostly of recognized occupational disease, that is, disease known to be primarily or exclusively work-related. This category also includes heart attacks suffered on the job. Occupational diseases are frequently diagnosed several years after the initial or crucial exposure to the toxic substance and in such cases, it is difficult to determine when the fatal exposure occurred. *The occupational disease category, therefore, should not be interpreted to reflect present worksite hazardous conditions or exposures.*

Each year the WCB accepts some occupational fatality claims for compensation. Occupational fatality claims that were accepted in a particular year may include fatalities from prior years. In 2004, half of all fatalities accepted by the WCB in the Manufacturing, Processing and Packaging industries were occupational disease incidents (see Table 5.0).

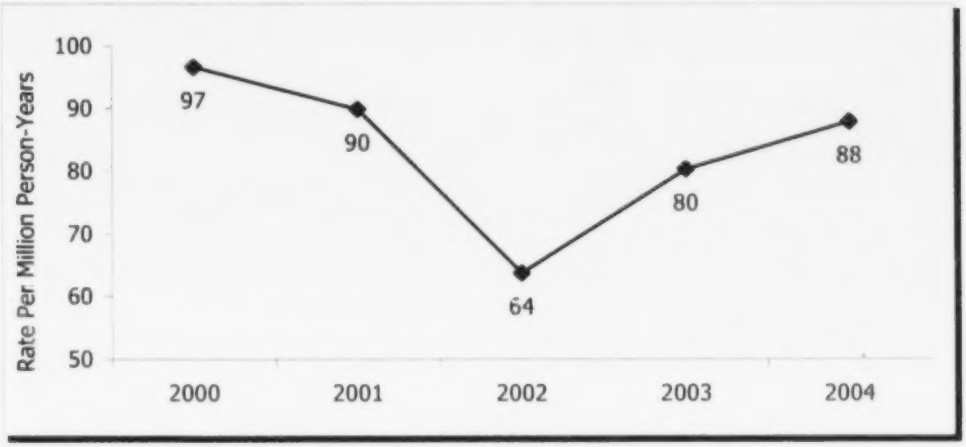
Table 5.0
Types of Occupational Fatalities Accepted by the WCB – Alberta: 2000-2004

	Occupational Disease		Motor Vehicle Incidents		Workplace Incidents		Total
Year	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities	%	Number of Fatalities
2000	6	37.5%	1	6.3%	9	56.3%	16
2001	9	60.0%	4	26.7%	2	13.3%	15
2002	6	54.5%	3	27.3%	2	18.2%	11
2003	10	71.4%	1	7.1%	3	21.4%	14
2004	**8**	**50.0%**	**2**	**12.5%**	**6**	**37.5%**	**16**
Total	39	54.2%	11	15.3%	22	30.6%	72

Data Source: 2004 WCB Data. Prepared by Data Development and Evaluation

The fatality rate is calculated by dividing the number of accepted fatalities in the year by the number of person-years in that year. The result is expressed as "per million person-years." The 2004 fatality rate was 88 per million person-years, an increase of 10.0% from 2003 (see Chart 5.0).

Chart 5.0
Fatality Rate[11] in Manufacturing, Processing and Packaging Industries: 2000-2004



Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

[11] Estimates are based upon information provided by the WCB. Fatalities occurring under Government of Canada jurisdiction are excluded from the calculation of the fatality rates.

Between 2000 and 2004, the WCB accepted 72 fatalities in the Manufacturing, Processing and Packaging industries. The Primary Metal (especially Steel) Products sub-sector had the most with 37 fatalities, accounting for over half of all fatalities in the Manufacturing, Processing and Packaging industries (see Table 5.1).

Table 5.1
Manufacturing, Processing and Packaging Occupational Fatalities Accepted by the WCB by Sub-Sector – Alberta: 2000-2004

Sub-Sector	2000	2001	2002	2003	2004	Total Number of Fatalities	%
Primary Metal (esp. Steel) Products	8	11	4	6	**8**	37	51.4%
Gases, Fertilizer & Petrochemical - Refining & Mfg	1	0	4	3	**3**	11	15.3%
Wood Products	4	1	1	2	**0**	8	11.1%
Foundries (not Steel), Rubber & Non-Metallic Products	2	1	0	2	**2**	7	9.7%
Feed/Seed, Food and Beverage Products	0	0	1	1	**1**	3	4.2%
Industrial Equipment	1	1	0	0	**1**	3	4.2%
Meat, Hides and Pet Products	0	1	0	0	**0**	1	1.4%
Printed and Published Products	0	0	1	0	**0**	1	1.4%
Other	0	0	0	0	**1**	1	1.4%
Clothing and Textile Products	0	0	0	0	**0**	0	0.0%
Furniture and Allied Products	0	0	0	0	**0**	0	0.0%
Plastic Products	0	0	0	0	**0**	0	0.0%
Manufacturing, Processing & Packaging Industries	**16**	**15**	**11**	**14**	**16**	**72**	**100.0%**

Data Source: 2004 WCB Data, Prepared by Data Development and Evaluation

A

APPENDIX A: TERMS, DEFINITIONS AND FORMULAS

Lost-Time Claim

A lost-time claim (LTC) is a claim for an occupational injury or disease which disables the worker beyond the day of injury. Included are claims for which wages compensation are paid, permanent disability claims, fatalities and cases in which the injured worker is assigned light duties or other modified work upon return to work from time lost due to injury.

Person-Years

Person-Year estimates are calculated from wage and payroll data provided by account holders to the WCB. Alberta Human Resources and Employment uses this data to estimate an average industry wage and uses the average industry wage and employer payroll data to estimate person-years for each employer and each industry. One person-year is equivalent to one full-time worker working for one year and can be assumed to equal 2,000 hours worked.

LTC Rate

The lost-time claim (LTC) rate is calculated by dividing the number of lost-time claims by the person-year estimate and multiplying the result by 100. The LTC rate represents the probability or risk of disabling injury or disease to a worker during a period of one-year work. Comparisons of LTC rates between industries or between years can be used to indicate increases, decreases or differences in this risk.

$$\text{LTC Rate} = \frac{\text{Number of LTCs} \times 100}{\text{Person-Years}}$$

Duration (Days Lost)

The duration of disability is the number of days following the injury or disease for which the worker was disabled and unable to perform normal work duties. This information is obtained for this report from data on compensation days paid on each claim from WCB. Alberta Human Resources and Employment obtains this data on March 31 of the year following the claim year and does not update the information, even though many injured workers continue to be disabled beyond this date. As a result, the duration information reported here underestimates the true impact of lost-time injury and disease.

Duration Rate

The duration rate is calculated by dividing the number of workdays lost (disability days) by the person-year estimate, and multiplying by 100. The result is expressed as days lost per 100 person-years and indicates, in part, the economic impact of occupational injury and disease. Duration rates are not recommended as reliable indicators of full economic cost. In addition, readers are warned that duration rates are highly unstable when based on only a few lost-time claims; it is recommended that the duration rate not be calculated based upon fewer than 30 lost-time claims.

$$\text{Duration Rate} = \frac{\text{Disability Days} \times 100}{\text{Person-Years}}$$

Cost of Claims

Compensation cost of a claim is the reimbursement of full or partial lost wages that a worker received from the WCB due to occupational illness or injury.

WCB Accepted Fatality

An occupational fatality is the death of a worker which resulted from a work-related incident or exposure and which has been accepted by the WCB for compensation. A fatality is counted in the year it is accepted.

Fatality Rate

The fatality rate is calculated by dividing the number of accepted fatalities by the person-years estimate and multiplying the result by one million. The result is expressed as fatalities per million person-years. Fatalities that are found under the jurisdiction of the Government of Canada are excluded before the calculation of the fatality rate.

$$\text{Fatality Rate} = \frac{\text{Number of Fatalities} \times 1{,}000{,}000}{\text{Person-Years}}$$

Number of Times Higher/Lower than the Provincial Average

The number of times higher/lower than the provincial average is used to compare the performance of the industries with the province regarding specific injury or disease. A number less than one indicates that the injury of the industries is lower than the provincial average; if equal to one it indicates the injury of the industries is the same as the provincial average and a number greater than one indicates that the injury of the industries is higher than the provincial average.

$$\frac{\text{Percent of Total Claims for the Industries} \times \text{Industries' LTC Rate}}{\text{Percent of Total Claims for the Province} \times \text{Provincial LTC Rate}}$$

Where:

Percent of Total Claims for the Industries =

$$\frac{\text{Number of LTCs for the Industries (e.g. back injury)} \times 100}{\text{Total LTCs for the Industries}}$$

Percent of Total Claims for the Province =

$$\frac{\text{Number of LTCs for the Province (e.g. back injury)} \times 100}{\text{Total LTCs for the Province}}$$

NEC Means 'Not Elsewhere Classified'.

UNS Means 'Unspecified'.

B

APPENDIX B: MANUFACTURING, PROCESSING AND PACKAGING WCB INDUSTRY CODES[12]

1. Meat, Hides and Pelt Products

01103 – Poultry Loading Services
10100 – Meat Processing
10104 – Rendering Plants
17200 – Tanneries

2. Clothing and Textile Products

17900 – Leather Goods – Manufacturing/Repair
21300 – Rope/Carpet – Manufacturing/Repair
22900 – Crests/Pennants – Manufacturing/Repair
22901 – Drapes/Linens – Manufacturing/Repair/Installation
24900 – Wearing Apparel – Manufacturing/Repair

3. Feed/Seed, Food and Beverage Products

02101 – Seed Cleaning Plants
02112 – Egg Grading
10500 – Dairy Products Processing
11202 – Fruit Juice Processing
12301 – Feed Mills
12400 – Flour Mills
12900 – Bakeries
13100 – Food Process – Miscellaneous
13101 – Candy Manufacturing
13300 – Beet Sugar Processing
13500 – Vegetable Oils/Yeast Manufacturing
13900 – Malt Manufacturing
13904 – Pasta Manufacturing
13905 – Vegetables Process/Grade
14100 – Soft Drinks/Water/Ice – Manufacturing
14300 – Liquor/Wine – Manufacturing
14500 – Breweries
37402 – Medicine/Vitamin Manufacturing

4. Wood Products

25100 – Saw Mills/Planing Mills
25401 – Wood Products – Manufacturing
25900 – Peel/Point – Posts
25901 – Treating of Timber

[12] Codes are Workers' Compensation Board 2004 industry codes.

27102 – Pulp Mills
27103 – Panelboard – Manufacturing

5. Furniture and Allied Products

26101 – Upholstered Furniture – Manufacturing/Repair
26104 – Furniture Refinishing
42147 – Finishing Carpentry

6. Printed and Published Products

27402 – Envelope Manufacturing
28600 – Printing/Book Binding
28800 – Publish without Printing
28900 – Publish with Printing
86202 – Newspaper/Flyer Distribution
89301 – Electronic Print/Photofinishing

7. Foundries (not Steel), Rubber and Non-metallic Products

16901 – Tires/Rubber Products – Manufacturing
27200 – Asphalt Roofing Products – Manufacturing
29700 – Foundry – Non-ferrous
34100 – Pre-mixed Cement – Manufacturing
34500 – Gypsum Board – Manufacturing
34700 – Concrete Products – Manufacturing
34702 – Artificial Stone Products – Manufacturing
34800 – Transit Mix Operations
35200 – Clay Bricks – Manufacturing
35401 – Fibreglass Insulation – Manufacturing
38500 – Fibreglass Reinforced Products – Manufacturing

8. Primary Metal (esp. Steel) Products

26401 – Metal Furniture Manufacturing
29100 – Steel Manufacturing – exclude Foundries
29102 – Foundries, Iron and Steel
29200 – Steel Pipe Manufacturing
30100 – Steel/Metal Fabrication
30101 – Heat Treating/Stress Relieving
30403 – Metal/Porcelain Products – Coating
30407 – Pipe Cleaning/Coating
30412 – Sheet Metal Shops
30700 – Heat/Cooling Equipment Manufacturing
30801 – Machining
33602 – Switchboard/Electrical Panel – Manufacturing
33606 – Industrial Electric Equipment – Manufacturing
62500 – Steel Service Centre – No Salvage
62700 – Scrap/Salvage Dealers

89401 – Welding

9. Industrial Equipment

16902 – Industrial Belting – Install/Service
38100 – Instrumentation – Manufacturing
62304 – Compressors/Power Unit – Manufacturing

10. Gases, Fertilizer and Petrochemical – Refining and Manufacturing

36500 – Refine – Crude/Used Oil
37201 – Fertilizer Manufacturing/Nickel Refining
37801 – Petrochemicals – Manufacturing
37805 – Industrial Gases – Manufacturing

11. Plastic Products

37301 – Plastic Products – Manufacturing

12. Other Manufacturing, Processing and Packaging Industries

07900 – Peat Moss – Harvest/Process
12304 – Forage Processing
16900 – Rubber Stamps/Stencils – Manufacturing
17901 – Vinyl Goods – Manufacturing /Repair
22101 – Awnings/Tents/Tarps – Manufacturing /Repair
27300 – Cardboard Box/Tubing/Bag – Manufacturing
28603 – Signs/Advertising Displays – Manufacturing
29600 – Aluminum/Metal Extrusion
33500 – Phone Equipment – Manufacturing /Install
33900 – Light Fixtures – Manufacturing /Assembly
33902 – Electrical Components – Manufacturing
38200 – Jewelry – Manufacturing
38201 – Lapidary Services
39300 – Sporting Equipment/Brooms – Manufacturing
39701 – Outdoor Advertising
39901 – Picture Frame, Case, Casket – Manufacturing
69903 – Pottery – Manufacturing
86201 – Window/Store Display Ad Services
89916 – Taxidermists

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Work Safe Alberta website:

www.worksafely.org